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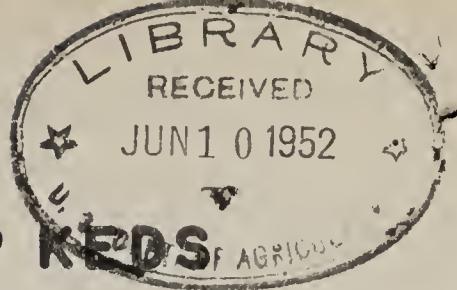


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## CONTROL SHEEP KEDS

Bureau of Animal Industry Agricultural Research Administration  
UNITED STATES DEPARTMENT OF AGRICULTURE

Sheep keds, commonly called sheep ticks, are usually present wherever sheep are raised. These external parasites puncture the skin to feed on the blood, causing intense skin irritation and reduced vitality. Heavily infested sheep become unthrifty and have a lower resistance to disease because their normal feeding and resting habits are interrupted. Moreover, their wool becomes thin and ragged from frequent rubbing to relieve the irritation, and dirty and discolored from the excrement deposited by the keds.

Keds multiply most abundantly during the winter and early spring months when the wool is long. At this time they spread through the flock rapidly, particularly when the sheep are assembled in close quarters for feed or shelter. Heavily-infested ewes may thus approach lambing in poor condition and produce lambs of low vitality. Shearing usually removes a large proportion of the keds, but many of those that remain on the shorn ewes soon migrate to the lambs because the longer wool provides a more favorable environment.

### KNOW YOUR ENEMY

The sheep ked is not a true tick, but a wingless fly with six legs. The adult is about one-fourth inch long, of a brown or reddish color, and covered with short, bristly hairs. The head is inconspicuous, appearing as part of the thorax, which is relatively small in comparison with the large abdomen.

The ked passes its entire life cycle on the host animal. It gives birth to fully developed larvae instead of laying eggs. The larvae are hatched from eggs within the body of the female ked and deposited in the wool. When first deposited, the larvae are covered with a soft transparent membrane which soon dries and becomes a hard brown shell, seed-like in appearance. This object often is mistaken for an egg, but actually is a pupa. An adult ked emerges from the pupal case after about three weeks. After mating the females deposit larvae at the rate of about one a week. The males may live on the animal for 80 days and the females 100 to 120 days. When removed from the sheep, the ked lives only from 4 to 5 days.

During cold, inclement weather, sheep keds remain deep in the fleece near the skin for warmth and shelter, but when the days are warm they may be found near the surface. They usually select body areas where the wool is long but not too dense, particularly the neck, breast, shoulders, flanks and rump. They usually avoid the back where dust and other debris collects in the wool. Coarse- and medium-wool breeds of sheep are more often infested with keds than are fine-wool breeds.

### EFFECTIVE TREATMENTS

Sheep keds are more easily controlled than many of the other external parasites of livestock. They are readily killed by a number of well known insecticides. Moreover, the wool of treated sheep is usually dense enough to retain the ked-killing agents for a sufficient length of time to destroy any young keds that may emerge later. Therefore, one thorough treatment should ordinarily rid sheep of these pests.

Rotenone, DDT, chlordane, toxaphene and benzene hexachloride are effective against sheep keds. Dipping infested sheep in any of these insecticides is the most effective and practical method of treatment. Completely submerging the sheep insures the destruction of all keds present. Sheep should be dipped after shearing when the wool is short. Otherwise, the wool will hold excessive amounts of dip and remain wet for many hours. Where facilities for dipping are not available, the spray method of treatment, if painstakingly applied, usually provides a good measure of ked control. However, it seldom eradicates them from the flock unless repeated several times. Best results from spraying, as from dipping, are attained when the wool is short. To insure good coverage spray only a few animals at a time, making every effort to treat the entire body surface of each sheep. Spraying large numbers of sheep, crowded together in a pen, never accomplishes the desired results.

### ESSENTIAL POINTS TO REMEMBER

- ✓ Dip if possible, (otherwise spray) all sheep in the flock after shearing, when shear cuts have healed. If goats are included in the flock, dip them too, as sheep keds may live on goats for some time.
- ✓ Use an insecticide of proven effectiveness for sheep keds, such as rotenone, DDT, chlordane, toxaphene or benzene hexachloride. The powder forms of these insecticides, mixed into water, are usually preferred for dipping or spraying. The oil emulsion forms are not recommended.
- ✓ The above-mentioned insecticides, with the exception of rotenone, should not be used on sheep within 30 days prior to their slaughter for food.
- ✓ Examine sheep in the fall. If keds are found, repeat dipping or spraying before the weather gets cold.
- ✓ Before introducing outside sheep into a ked-free flock, examine them carefully and destroy any keds that might be found.



